DEC 1951

U.S. Officials Only

CONFIDENTIAL

SECURITY INFORMATION

CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

COUNTRY USSR

SUBJECT Selection and Training of University Students in Fields of Metallurgy and Chemistry

DATE DISTR. 8 May 53

NO. OF PAGES 3

NO. OF ENCLS.

SUPP. TO REPORT NO.

50X1-HUM

THIS IS **UNEVALUATED** INFORMATION

50X1-HUM

50X1-HUM

The universities in the USSR have entrance examinations which cover gymnasium level work, and in addition have one section devoted to political queries. A screening board consisting of Communist Party faculty members examines each candidate also for political orientation primarily, and secondarily for other qualities such as aptitude, character, and the other characteristics of common concern to universities the world over. Scholastic ability is secondary to political reliability. A Komsomol member has a better chance of acceptance than a non-member, but a Komsomol member with a bourgeois background might be discriminated against in favor of a candidate with a peasant background. The economic status of a candidate has little or no bearing. Many scholarships of varying size are available for political reliables, and occasionally for pure scholars. A student has a relatively free hand in choosing a university.

3.

engineering schools deemphasize the political written examination while still having a rigid screening board. This presumption is based on the fact that technical personnel traditionally are politically disinterested and are at a premium.

U.S. Officials Only

CONFIDENTIAL

SECURITY INFORMATION

DISTRIBUTION	STATE		ARMY		NAVY		AIR		FBI		C/OSI	EU	

This report is for the use within the USA of the Intelligence components of the Departments or Agencies indicated above. It is not to be transmitted overseas without the concurrence of the originating office through the Assistant Director of the Office of Collection and Dissemination, CIA.

50X1-HUM

4.

Availability of textbooks is good. There is an adequate number and cost is low. As an example, a bound textbook on metallurgy, printed in 1938 in Moscow, priced at 2 rubles, 75 kopers. The most expensive textbooks seldom run over 10 rubles (1944). Most editions are limited, and new editions are brought out regularly. Quality of texts as regards paper and binding is only fair. Durability under constant use is limited. Illustrations are comparable in quality and quantity to other foreign texts. Sources of information are usually translations of the best foreign books, with actual source unmentioned. Choices for translation are very good. In fields of chemistry and physics there are some original works due mainly to the immense effort spent in those fields on military research. Original Russian texts are accurate but superficial. Translations of foreign sources are filled with translation errors. Illustrations are well reproduced.

50X1-HUM

50X1-HUM

5.

Classes are crowded due to a shortage of competent teachers, and the emphasis is on technical training with the resulting increase in enrollment. Hours of instruction are longer than in comparable US institutions, due to the usual intense European university schedule and the obligatory Soviet political lectures and study periods. Mechanical or visual training aids in general engineering, physics or chemistry laboratories are scarce. Professors or laboratory instructors have more demonstration assistants, however, than their US counterparts. Graduate students do not exist as such, and advanced degree candidates are responsible more to a professor than to the university. They are not used for teaching purposes but sometimes are employed as laboratory technicians. Those seeking a doctorate degree are called aspirants, and they sometimes teach away from the university, perhaps in a technical high school. Individual instruction is available and it is up to the student to arrange a private deal with an instructor. Professors are theoretically accessible to students by regulations of Communist Party, and in practice usually are. The influence of the area in which a university is located has a direct bearing on quality of education due to Soviet practise of much on-the-job training of engineering students. Universities in industrial areas profit. Entree to industry is ready as much technical advice is contracted for with universities.

50X1-HUM

6.

Chemistry laboratories are unusually short on equipment, particularly in field of reagents. Also laboratory time is at the mercy of political lectures.

7.

Written, oral and laboratory report type exams are used. Engineering and science courses are usually divided into lectures, seminars, and laboratory periods. Four or five tests are given per school year on seminar work. Reports are handed in customarily on results of laboratory experiments, and occasionally a final exam is given depending on the whim of the professor. A final course examination is given at the end of the school year. No sliding scale is used for grading, and the equivalent of a numerical 70 out of 100 is required to pass. Political reliability is a crutch that enables some poor students to be upgraded so as to pass. In practice, professors and instructors never severely grade papers of political reliables for fear of dismissal.

8.

Even the most prominent Soviet scientists devote two or three hours per week to undergraduate lectures. Such lectures are in reality university lectures, and

50X1-HUM

all who choose may attend. Professors choose their own personal assistants. Their supervision over undergraduate research is complete. Over graduate research only the supervision of the type research that the student has personally chosen is given. Naturally, if the field is absurd a professor would do his best to deter the individual. Those students seeking a master's degree (candidate), do research for their thesis and write conclusions over one school year. No courses are required. Certain engineering theses require only one semester's work, depending on the topic. Aspirants for a doctorate degree apply for the privilege to Ministry of Education. If accepted as an aspirant, the student is assigned to a university for his research and is paid. Some aspirants spend as long as five years doing research, writing a thesis, and preparing for oral examination. A board of three to five professors conduct oral examination.

9. [redacted]. There is no credit hour system, and courses successfully passed count alone. For advanced degrees, when a student feels he is ready to be examined he takes the exam.

50X1-HUM

[redacted] the requirements at the University of Riga were slightly higher than those in the USSR universities. I happen to have an outline of the program leading to the degree of Master of Pharmacy [redacted]

10. [redacted]

Training is slanted towards military requirements and heavy industry.

11. [redacted]

11. All graduates are at the command of the various Soviet ministries, who assign them according to needs. Those who aspire to teach have a certain amount of latitude, particularly as regards becoming aspirants, a route leading to a teaching career.

[redacted]

- end -

P r o g r a m

of study in Department of Pharmacy, Faculty of Chemistry, the University of Latvia, Riga, Latvia.
Only applicants with a full highschool diploma (certificate of maturity) were admitted to the University. The minimum period of study was 5 years (10 semesters). After completing the courses mentioned below and after presenting a thesis, the degree of a M a g i s t e r of P h a r m a c y was granted.

1944

Courses	Semesters	Hours weekly
1. Calculus, lectures with problem laboratory	2	4
2. Experimental physics	2	4
3. Laboratory in physics	1	4
4. Inorganic chemistry, lectures	2	4
5. General botany	2	2
6. Laboratory in botany, identification of plants and herbarium (100 plants)	1	1
7. Zoology	2	2
8. Cristallography	1	2
9. Laboratory in cristallography	1	2
10. Mineralogy	1	2
11. Laboratory in mineralogy	1	2
12. Anatomy of plants	1	1
13. Laboratory in anatomy of plants	1	1
14. Microscopy	1	1
15. Laboratory in microscopy	1/2	1
16. Inorganic laboratory, general	1	12
17. " " qualitative	1	18-24
18. Organic chemistry	2	4
19. Analytical chemistry	2	2
20. Physical and electro-chemistry	2	4
21. Laboratory in physical electro-chemistry	1/2	3
22. Pharmacognosy	2	4
23. Laboratory in pharmacognosy	2	4
24. Pharmaceutic chemistry	2	4
25. Analysis of medicaments	1	2
26. Laboratory in analysis of medicaments	1	4
27. History of pharmacy	1	1
28. Anatomy and physiology of man	1	1
29. Geology	1	2
30. Propadeutic of pharmacy	1	1
31. Lab. Laboratory - quantitative analysis	1	24
32. Chemistry of food stuffs	2	2
33. Laboratory in food stuffs	2	6
34. Forensic chemistry	1	2
35. Laboratory in forensic chemistry	1	4
36. Technology of pharmaceutic chemistry I	1	2
37. Technology of chemistry ..	1	2
38. Laboratory in technology	1	4
39. Bacteriology and serology	1	4
40. Laboratory in bacteriology and serology	1	2
41. Chemistry of colloids	1	2
42. Laboratory in colloid chemistry	1	2
43. Prescriptions I	1	2

C 15582

44. Laboratory in prescriptions	1	4
45. Hygiene	1	1
46. Pharmacology	1	1
47. First aid	1	1
48. IV. Laboratory -organic chemistry	1	30
49. Chemical warfare	1	1
50. Production of medicaments (drugs)	1	4
51. Laboratory in productio of medicaments	1	12
52. Prescriptions II	1/2	30
53. Clinical analysis	1	2
54. Laboratory in clinical analysis	1	4
55. Thesis	1-2	

After completing all these courses a final academical examination in the following subjects was to be passed:

Inorganic chemistry
Organic chemistry
Pharmaceutic chemistry
Pharmacognosy.

After that the previously mentioned thesis was to be defended whereafter the academic degree of Magister of Pharmacy was granted.
In order to manage a normal apothecary shop, a practice of 2 years was required.
The degree "Magister of Pharmacy" is equivalent to the Master's degree in the U.S.A.